THE SOCIAL SKILLS OF ABSTINENCE

By

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This study explored the general interpersonal social skills and social skills related to drug-taking behavior in groups comprised of recent and ex-heroin addicts, recent and ex-alcoholics, and current methadone maintenance clients.

Scenes involving enactments of situations requiring negative assertions were videotaped and rated by judges on various components of assertive behavior. One-half of the scenes involved general interpersonal situations (The Behavioral Assertiveness Test) and one-half of the scenes involved situations related to drug and alcohol use (The Social Skills of Abstinence). The Assertion Inventory was also administered. A multivariate analysis of variance showed the ex-heroin addicts to be the most assertive group;

the ex-alcoholics were more assertive than several groups. The results were discussed in terms of the apparent relationship between abstinence and social skills related to avoiding the use of drugs and alcohol. Recent findings indicating the multi-dimensional aspects of assertive behavior were also discussed.

INTRODUCTION

Incidence

While theories about the causes and the mechanisms of addiction to chemical substances vary, the consequences of drug addiction are all too clear. Alcohol abuse, or alcoholism, costs our economy approximately 15 billion dollars per year. There are 95 million drinkers in this country consuming an average of 3.93 gallons of absolute alcohol per person per year; 9 million of these people have alcohol-related problems. Due to the deliterious effect of alcohol on major organ systems, alcohol abusers shorten their lives by 10-12 years, that is if they do not die of an overdose or in an automobile accident or at the hands of an assailant. One-half of all traffic fatalities and one-third of all homicide victims have significant amounts of alcohol in their bloodstreams at the time of autopsy (Rosenberg, 1973).

The statistics for heroin addiction are no less grim. An estimated one out of every 400,000 or 500,000 people are addicted to heroin in the United States. In 1971, the Deputy Chief of New York's Medical Division reported that overdose of heroin had become the leading cause of death among teenagers in that city; over 1,000 youngsters died as a result of heroin overdose in New York City in 1971 alone

(Zielinsky, 1972). The Vietnam war brought with it a serious heroin problem for the U. S. Armed Forces; in 1971 an estimated 15 percent of the service men in South Vietnam were using heroin regularly (Murphy, 1971). While heroin dependency is believed to be most frequent in the lower economic strata, its use is growing in other segments of society. Surprisingly, 1 percent of the American medical profession is said to be addicted to narcotics (Louria, 1966).

Heroin's toll in human misery, crime, violence, ill health, and death is incalculable; heroin addicts do not remain addicts and live very long. Even a modest habit generally requires a good deal of criminal activity to support that habit; and the combination of heroin and the criminal culture is an evergrowing spiral ending in disease or prison or death.

Data from Veterans Administration hospitals lends further light to the significance of the current drug problem. In fiscal year 1975, 158,000 patients were discharged from V.A. hospitals with principal or associated diagnoses of alcoholism; in addition, 43,000 outpatients were seen. The V.A. operates 71 specialized alcohol treatment units with 37 additional units planned. In 53 drug dependency units, 21,000 were hospitalized with drug dependencies other than alcohol with an average daily census of 1,200 inpatients. Added to this were 11,000 outpatients to make a total of 87,000 in treatment for non-alcohol drug dependencies (Baker, 1975).

Drug dependency historically has been looked upon as a voluntary, self-indulgent activity associated with a weak character or moral degradation (Catanzaro, 1968). But as Hardy and Cull (1973) put it, "whether we like the moral consequences or not we must consider the fact that there are large numbers of people in our country who feel so desperate that they go out of their way, often destroying their entire lives, to take heroin...." or to drink alcohol (p. 27).

Definition of Terms

In 1965, the World Health Organization Expert Commission on Addiction-Producing Drugs recommended the general usage of the term "drug dependency" instead of "drug addiction" or "drug habituation." The terms discussed and defined in this section are described by Eddy et al. (1968). The most widely accepted definition of drug dependency is "a state of psychic or physical dependence, or both, on a drug, arising in a person following administration of that drug on a periodic or continuous basis. The characteristics of such a state will vary with the agent involved, and these characteristics must always be made clear by designating the particular type of drug dependence in each specific case; for example, drug dependence of morphine type, drug dependence of barbiturate type, etc." (Eddy et al. 1968, p. 41). This definition of drug dependence will apply in this paper; the term "drug dependence" taken alone will mean drug depen-

dence of all types, including both alcohol dependence and heroin dependence.

Eddy also outlines the recommended usage of the terms "psychic dependence" and "physical dependence." Psychic dependence is defined as "a feeling of satisfaction and a psychic drive that require periodic or continuous administration of the drug to produce pleasure or to avoid discomfort" (Eddy et al., 1968, p. 42). Physical dependence is "an adaptive state that manifests itself by intense physical disturbance when the administration of the drug is suspended or when its action is affected by the administration of a specific antagonist" (Eddy et al., 1968, p. 42). Although psychic dependence and physical dependence generally occur together, each can exist in the absence of the other. For example, psychic dependence without evidence of physical dependence is most commonly seen in stimulant-type drugs.

A final term "tolerance" is defined by Eddy. Drugs that induce physical dependence, also produce "tolerance" which is "an adaptive state characterized by diminished responsivity to the same quantity of drug or by the fact that a larger dose is required to produce the same degree of pharmacodynamic effect" (Eddy et al., 1968, p. 43).

The two types of drug dependence considered in this study are drug dependence of the morphine type and drug dependence of the barbiturate-alcohol type. Both are characterized by psychic dependence, physical dependence, and tolerance. Morphine dependence shows an early and predictable development of physical dependence and tolerance

which can be induced readily by repeated administration of small doses and which increase in intensity in a direct relationship to an increase in dosage. A strong psychic dependence is also characteristic of morphine dependence (Eddy et al., 1968).

Alcohol dependence is characterized by psychic dependence of varying degrees, as is evidenced by the existence of both periodic and continuous abusers. Also characteristic of alcohol dependence is a definite development of physical dependence, irregular and imcomplete tolerance, and overt pathology in body tissues. It is generally accepted that alcohol dependence exists where "the consumption of alcohol by an individual exceeds the limits accepted by his culture, if he consumes alcohol at times that are deemed inappropriate, or if his intake becomes so great as to injure his health or impair his social relationships" (Eddy et al., 1968, p. 47).

The final point to consider when examining or defining drug abuse and drug dependence is the high incidence of polydrug abuse among drug dependent persons. Although less frequent among alcohol abusers than among heroin abusers, people who abuse morphine, alcohol, and barbiturates also frequently use methadone, heroin, alcohol, marijuana, barbiturates, sedatives, and cocaine (Ball et al., 1968; Weppner & Agar, 1971; Weppner et al., 1972).

SOCIOCULTURAL ASPECTS OF DRUG DEPENDENCE

Drug use is an accepted practice in our society; and, historically, all societies similarly have tolerated the use of mood-altering and mind-altering chemicals (Hardy & Cull, 1973). Sociological literature contains many explanations for the cause of deviant behavior; in fact, deviance is seen as an integral part of healthy society (Mead, 1918).

In the 1860's in the United States, heroin addiction was estimated in 4 percent of the population (Nyswander, 1956); laudanum and paragoric were sold without prescription. Alcohol use has been pandemic throughout history. With the advent of modern chemistry and modern medicine after World War II, the availability and use of mood-altering drugs has become universal. The 1960's saw extensive experimentation, especially among the young, with all sorts of chemical substances. Whether using drugs out of a sense of boredom, of adventure, or of despair, large numbers of people found themselves to be addicted to drugs which they could no longer control but which now controlled them.

Why this seeking of synthetic experience? Westman (1970), among others, sees it as a basic failing in our social structure. He points to the loss of a sense of family and community, feelings of powerlessness, hopeless-

ness, uselessness. He proposes that contempory American culture creates a belief in instant happiness, instant success, and instant relief, leading people to believe that they should be constantly happy, well-liked, talented, successful, and free of anxiety and tension. In the absence of this best-of-all external worlds, people feel compelled to alter their internal world with drugs.

Research studies of precedent factors in the development of drug dependence are few. In a 30-year follow-up study of 502 children who had been seen in child clinics and matched with controls, Robins and O'Neal (1958) found that several childhood factors were related to later alcoholism. The children who later became chronic drinkers came from families which were characterized by very low social status, parental inadequacy, and antisocial behavior on the part of the children themselves. Amark (1951) found a high rate of criminal behavior and alcoholism in the brothers of alcoholics and a high rate of criminal behavior in the fathers of alcoholics. He concluded that an antisocial family precedes alcoholism.

Craig and Brown (1975) compared family conditions and social conditions of a group of 19-year old black heroin addicts in treatment in the District of Columbia with conditions in a matched group of nonaddicts. They found no difference in length of time in the city, recreational activities, church attendance, career aspirations, reported liking of school, and awareness of drug availability. How-

ever, the drug users were more likely to have been raised in childhood by a single parent, to be drop outs, to be engaged in more purely social activities rather than sports activities, to have fewer close friends, not to use community facilities, to have family members who use drugs, and to have more arrests. In late adolescence both groups were equal in number of single-parent families, age at first arrest, and the use of alcohol. The only significant difference between groups was in the availability of both parents in childhood; the other differences were attributed to drug use. When asked why they never became involved with drugs, nonusers most frequently cited as reasons the observed effects of the drug on others and the physical danger involved.

Chein (1966) reports that chronic heroin users come from homes that are poor both economically and emotionally, that are characterized by the absence of mutuality of affection and respect, by inadequate adult role models, especially male models, and by a highly influential delinquent subculture. Other research studies point to failure in the nuclear family. Hardy and Cull (1973) provide a comprehensive review of parental factors identified by researchers to be precedent to drug addiction: maternal separation (Bowlby, 1951), parental abuse (Kemp, 1962), parental hostility and lack of discipline (Becker, 1964), parental inconsistency (Bandura and Walters, 1959), poor family communication (Haley, 1963), and conflict in the home (Chein, 1964). These authors also point out that the strains of adolescence contribute to drug abuse.

Clinebell (1956) interviewed 77 alcoholics regarding early childhood; he claimed that 57 percent came from homes which could be regarded as severely inadequate. He identified four major parental characteristics in the families of alcoholics: authoritarianism, success worship, moralism, and parental rejection.

Ethnic group memberships play a part in drug abuse. Alcoholism is more common among some groups such as the French and the Irish (Catanzaro, 1968). By the same token, heroin abuse is more prevalent in the black urban ghetto culture. Apparently there is a relationship between ethnic group prescriptions and proscriptions about drug use and its prevalence.

A group important to the development of drug abuse is the deviant adolescent group. The adolescent's desire for new experience, for rebellion, and for peer group membership may bring him in contact with a subculture in which drug use is an accepted norm. Erikson (1968) tells us that the average youth will choose visible evidence of his rebellion and alienation, usually dress and hairstyle. The more troubled youth may seek a more extreme personal revolution. For the teenager drugs serve a dual purpose, relief from anxiety and the rejection of the authority of others. Once the youth begins to use the drug and develops tolerance for it, he will have met others who also use drugs. Valuing the acceptance that the new friendships provide, the youth continues his drug use.

Chein (1966) points out that the young narcotic addict gets three things from his involvement with narcotics: (1) an identity; (2) a place in a subsociety where he is accepted, where he belongs; and (3) a career at which he is reasonably competent. This career is comprised of activities and rituals involving drug use such as maintaining a supply, avoiding the police, stealing, "dealing," and sometimes incarceration. The youth develops what Erickson (1968) calls a rebellious identity.

In studies of the personality traits of alcoholics and heroin addicts drug abusers of both types exhibit a broad range of personality types, covering all areas of neurotic, psychotic, and dysocial behavior (Hardy & Cull, 1973; Lindesmith, 1966; Solomon, 1968).

Asserting that severely neurotic patients are "at risk" for the development of drug dependence, Sims (1975) reports a 12-year follow-up study carried out with 146 patients treated for neurosis. Ten percent showed evidence of alcohol or other drug abuse at follow-up. Pittman and Snyder (1962) describe a longitudinal study of 225 children studied at a British youth study center for the prevention of delinquency. They found that 29, or 13 percent, later became alcoholics. They report that these subjects as children were paradoxically more outwardly self-confident, undisturbed by normal fears, indifferent to siblings, and disapproving of their mothers. The authors hypothesized that these characteristics provided a defense for the children against strong dependency needs, needs which subsequently led them to alcoholism.

Clinebell (1956) derived 11 characteristics of alcoholics, characteristics which later will be seen to be typical of heroin addicts also. He found these factors to be common to a majority of alcoholics studied:

(1) angry overdependency, this he found to be the most common characteristic and to be the result of parental rejection or overprotection;

(2) inability to express emotions adequately, especially feelings of anger which ultimately are introjected;

(3) high level of anxiety in interpersonal relationships;

(4) emotional immaturity manifested by moodiness, demandingness, acting-out of emotions;

(5) ambivalence toward authority, also quite prevalent in this population;

(6) low frustration tolerance;

(7) grandiosity;

(8) low self esteem;

(9) feelings of isolation;

(10) perfectionism and compulsiveness; and

(11) sex-role confusion.

Ruth Fox (1968) sees the alcoholic's basic dilemma as an attempt to deny and to cope with feelings of helplessness, depression, and fear. To her, the basic characteristics of alcoholics are repressed hostility, overdependency, depression, anxiety, sexual problems, and character disorders.

The mechanism of denial, of flight, appears to be central to the need for mood-altering chemical substances.

Ullmann and Krasner (1969) see the treatment of alcohol dependence to be essentially the same as that for obsessive-compulsive behavior. By the same token, Garitano and Ronald (1974) view the lifestyle of the alcoholic to be one of flight from tasks, from relationships, and from self.

For heroin abusers, Rado (1957) feels that the precipitating factor is depression; in his estimation it is the removal of the pain of depression which produces the narcotic pleasure effect. Chein (1964) outlines the "personality deficiencies" he has identified in narcotic addicts:

(1) low panic and frustration thresholds when confronted by the demands of enduring intimate interpersonal relationships or of any time-consuming, responsible activity;

(2) little capacity of functioning at even low levels of competence under conditions of anxiety and frustration;

(3) profound distrust; comprehending of interpersonal relationships only in terms of manipulating others or intimidating them; and

(4) a characteristic mood suffused by a sense of futility, expectation of failure, and general depression.

The heroin addict is petulant, manipulative, immature, unhappy, having little impulse control, and little ability to gain satisfaction from things that give most other people

pleasure. He is verbally proficient, lacking in ego-ideal and superego, distrusting and fearful of authority figures; he is usually intellectually above normal, hostile, and has a shaky sexual identity. A person using drugs regularly in his adolescent years compounds his already existent personality problems by missing all the important developmental tasks essential to achieving an adult identity and adult coping behaviors. Anesthetized, the youngster does not face up to the tasks of developing mature heterosexual relationships, of working out a positive sense of identity which forms the basis for individual maturation (Erikson, 1968; Westman, 1970).

Gilbert and Lombardi (1967) compared heroin addicts and a matched group of controls. They found that both groups showed personality disturbances, but the addicts exhibited more extensive pathology in depression, tension, insecurity, feelings of inadequacy, and difficulty in forming close interpersonal relationships. They also showed more neurotic, psychotic, and psychopathic traits than did the control group. Berzins et al. (1971) claimed that heroin addicts are more disturbed than psychopathic; he found them to be defensive, egocentric, sexually confused, and exhibiting socially maladaptive behavior.

Psychometric tests have been administered to various groups of drug abusers and varying results have been obtained (Arnon et al., 1974; Bailey et al., 1961; Mott et al., 1972; Reith et al., 1975; Stein & Rozynko, 1974). This

area of research has shown no consistent results for any one measure and is in need of further exploration.

Overall (1974) provides an overview of MMPI studies on the personality patterns of alcoholics and narcotic addicts. His own research carried out on 460 randomly selected profiles of hospitalized patients, showed the average alcoholic profile to be neurotic, depressive, anxious, and passive-dependent (2-4-7); while the average heroin addict was antisocial, impulsive, irritable, and hostile (4-9).

In an exhaustive review of studies comparing alcoholics and heroin addicts on various measures, Freed (1973) identified personality traits that were similar for both groups. Some of them were conflict over basic dependency, the need to protect against depression, the ego's need to deny discomforting reality with artificial mood elevation, and masochistic regression to oral eroticism. He also found many similarities in social history. Freed's review indicates an important issue in studies of the "addictive personality"--there is a plethora of theories about the common personality traits of drug dependent persons, but few facts. Another author (Freedman, 1968) insists that, as clinicians and healers, "we can claim little credit for the treatment of any of the addictions from alcohol to food. We have not yet discovered a sound profile of an addictive personality in spite of years of speculation, even though there are many features common to persons who orient their lives around one or another addiction" (p. 1280). He concludes that "we have

much to learn about psychotherapy generally, as specialists focus upon the psychology of different addicts and the meaning of their searches for cure" (p. 1280).

The question now to be faced is whether the search for personality variables characteristics of drug-abusing populations, the "addictive personality," is a potentially fruitful pursuit. While systematic, comprehensive measurement studies are lacking, two major factors of such research are important to consider.

The first problem in delineating the "addictive personality" is determining whether the personality problems or the addiction came first. It appears clear that continued drug use must serve some function; some neurotic need must be met. In other words, it takes too much money, time, and effort to maintain a drug dependency for that dependency not to have a great deal of reinforcement value. On the other hand, deviant behavior disturbs one's interpersonal relationships and work and demands increasingly more deviant behaviors, all of which further exacerbate existing personality problems and create an entirely new set of problems. This question begins to resemble the chicken and the egg dilemma. At this point in our understanding of the problem, the best we can say is that personality problems may lead to drug abuse which then leads to additional personality disturbances. In terms of treatment of the addict, the temporal sequencing of problems and addiction is of less importance than guiding the addict in ceasing his maladaptive behavior and gaining control of his own existence.

An additional factor to consider in studying the "addictive personality" is the existence of drug abuse and drug dependence in all psychiatric categories and in all population groups and subgroups. Furthermore, the personality traits found to be characteristic of some groups of drug dependent persons do not clearly differentiate them from other diagnostic groups or from people who are "normal" (Bandura, 1969). Many personality characteristics found in research studies, such as, low frustration tolerance and lack of close interpersonal relationships, are not only characteristic of large numbers of people but also can be readily seen as a result of chronic drug use rather than as its cause. At any rate, if some pre-addiction experiences and personality traits are to be identified and associated with subsequent substance abuse, extensive longitudinal studies are necessary (Bandura, 1969).

Learning Variables

It has been pointed out that continuous use of drugs demands that that use serve some function. The use of drugs provide for the user a means of tension reduction (Ullmann and Krasner, 1969), a mastery over stress (Halleck, 1967), an escape from unpleasant feelings (Cutter et al., 1974); it provides an "alibi" (Chein, 1964), a means of escape from tasks, from others, from self (Garitano & Ronald, 1974). In short, drug abuse, like other deviant behavior, is adaptive behavior (Halleck, 1967; Menninger, 1963), and all forms of

aberrant behavior--neurosis, psychosis, psychopathy, crime, drug dependence--provide a certain degree of mastery over stress.

Halleck (1967) explains the development of aberrant behavior as a result of an individual's attempt to handle the wide variety of internal and external stresses which threaten to disrupt his psychological or biological equilibrium. To reduce these stresses, the individual develops behaviors which are determined by adaptations to past stressful experiences as well as by factors of the stress itself. Viewed in this light, drug dependence is a learned method of reducing stress; it is a multi-determined behavior involving the social aspects and the biological aspects of the stresses leading to and resulting from the repeated use of chemical substances.

The compelling personality factors and experiences preceding any given individual's drug dependence may vary greatly from the precipitating factors for another individual's addiction. However, for every drug dependent person among the most important aspects to be considered are the avoidance function that the drug use serves and the powerful conditioning that takes place with repeated drug use. Learning theory provides insights into the nature of drug dependence that are crucial to considering etiology and treatment.

Crowley's (1972) review of the reinforcers for drug abuse gives an overview of the learning views of drug abuse.

These views fall in two main areas: drug abuse as a function of primary positive reinforcement and drug abuse as a function of primary negative reinforcement.

Some researchers have found that certain drugs have primary reinforcing qualities; i.e., they produce such a profound effect in some individuals that they are reinforcing in and of themselves (Deneau et al., 1969). Among these drugs are morphine, codeine, ethanol (alcohol), cocaine, amphetamines, phenobarbital, and caffeine. Why are some people so dramatically effected by drugs and so many others not? Crowley (1972) postulates that those who live in an impoverished environment, such as the ghetto, where other reinforcers are few or not accessible, are particularly susceptible to the reinforcing qualities of these drugs. He also includes in this reinforcement-deficient group people with unrewarding, disturbed interpersonal relationships. He feels that such people learn that they cannot expect to receive reinforcement from their environment, so they turn to the predictable regular reinforcement of drugs.

Drug abuse as a function of primary negative reinforcement has two aspects: the cessation of unpleasant internal stimuli and the avoidance of unpleasant external stimuli. "A negative reinforcer is a stimulus, the termination of which reinforces behavior. Negative reinforcement is the reinforcement resulting from the cessation of an aversive (punishing) stimulus" (Crowley, 1972, p. 21). As one aspect of drug dependence, and an important one, uncomfortable

withdrawal symptoms can be seen as a negative stimulus; the subsequent administration of the drug stops the withdrawal experience and thereby serves as a primary negative reinforcer. Others point out the importance of drugs in blocking out aversive stimuli (Mello, 1968). Viewed in this way, the drug becomes a negative reinforcer because of its ability to reduce perception and awareness of both external and internal events. Interpersonal problems, threatening feelings, bothersome ideas can be effectively switched off with alcohol or heroin, both central nervous system depressants.

Secondary positive reinforcement and secondary negative reinforcement are also involved. Secondary positive reinforcement would derive from things such as peer group approval and the behavioral effects of the drugs (Crowley, 1972). Addicts in treatment report feeling "high" by simply talking about their drug experiences. Goldberg and Schuster (1967) demonstrated that secondary negative conditioning can be established by pairing a neutral stimulus with withdrawal symptoms. The concept of secondary reinforcement indicates another important variable to be considered in the treatment of drug dependent persons, for many aspects of their environment have become conditioned negative stimuli which will induce sensations of withdrawal. Patients who have completed treatment programs often report feeling puzzled and discouraged when they continue to experience "cravings" for the chemical which they feel they have conquered. The ex-heroin addict may feel that familiar nausea when he passes the street corner where he usually "copped," the ex-alcoholic

may feel a tremendous urge to pour a drink when his wife nags him or when he simply sits down in front of the television set where he did his drinking. Knowledge of these factors on the part of clinicians and patients alike is important in the patient's learning to respond to his environment in new adaptive ways.

Treatment Methods

Every conceivable type of therapy has been used in the treatment of drug dependence: insight-oriented psychotherapy, transcendental meditation, relaxation desensitization, hypnosis, new social groups (e.g., Synanon), aversive conditioning, token economies, chemotherapy, and probably more. Of all the methods employed, traditional forms of psychotherapy appear to be the least productive (Bandura, 1969; Ullmann and Krasner, 1969). A long-term study (Gerard et al., 1962) of 400 patients from various state-supported alcohol treatment facilities indicated that only 18 percent were abstinent at the end of a one-year follow-up period, of these almost half were dependent upon a support organization in the community (e.g., Alcoholics Anonymous). Fourty-one percent at follow-up were using alcohol, 17 percent were dead, and 14 percent were drinking but did not report alcohol as a problem to them.

Costello (1975) collated 58 studies of treatment effectiveness in alcoholism programs. Out of a total of 11,022 subjects, 1 percent were dead, 53 percent were drink-

ing, 25 percent were drinking moderately or not at all, and 21 percent were unaccounted for. Some aspects of programs with the best outcome rates were screening of clients, active intense treatment (1-40 weeks), antabuse, milieu ward orientation, behavioral therapy with client involvement, active emphasis on follow-up, and social casework or therapy with families and employers. Emrick (1974) also reviewed a number of outcome studies for psychotherapy-oriented treatment for alcoholism and found that 1/3 of the ex-patients were abstinent at follow-up. Kissin (1975) points out that estimates of success rates in alcohol treatment programs range from 10 percent to 70 percent. Similarly varied reports were found by O'Donnell (1967) in his review of 11 studies of relapse rates in narcotic addicts.

These few reports indicate the sparcity of studies of the comparative effectiveness of different treatment modalities (National Commission on Marijuana and Drug Abuse, 1973). Smart (1976) remarks that few controlled studies of treatment effectiveness for narcotic addicts are reported and those that are found in the literature are for correctional institutions. In his review of three treatment programs, all with half-way houses, patients were assessed after one year in terms of drug use and incarceration. It was found that the treatment programs were no more effective than probation for the population studied. MacDonough (1976) reports a comparative study of a traditional medical hospital program and a feedback-behavior modification program with alcohol and drug abusers from basically the same

subgroups. Effectiveness was judged according to three criteria: (1) return to work in 60 days, (2) perform effectively according to supervisor, and (3) control drug or alcohol problem. The feedback-behavior modification program was significantly more effective for the drug abuser than the traditional program, while both programs were equally effective for the alcoholic.

Synanon, established in 1958 by Charles E. Dederick, represents a form of treatment in which the addict is removed from the environment of his addiction and is placed in a highly-structured authoritarian "family." A crucial aspect of the Synanon program is its emphasis on verbal feedback concerning the resident's behavior. Ullmann and Krasner (1969) point out the similarity between Synanon and a behavioral approach. They cite a reference in Yablonsky (1965) where Dederick explains: "We work backward from psychoanalysis. They begin with the id and the unconscious. We get there, too, but we begin with behavior and the superego. We do not reward bad behavior here, and we always try to reward good behavior. We give the people here information about themselves and life, and this seems to equip them to construct their own superego. We just provide the tools for learning and a direction. The person does the rest himself" (p. 367-368).

Synanon has received criticism for its technique of abrasive verbal feedback and its lack of professional counselors. Some say that its overwhelming success rate is questionable and say that Synanon's residents can never

succeed in the society at large. But these points are not the important ones; the important thing to learn from Synanon is that its behavioral emphasis works for the clients who live there. So it seems that its system of structured demands for behavior change is a viable treatment modality.

Behavioral techniques have been used with some success in treating drug dependence. Among these techniques are aversive conditioning, token economies, desensitization, and assertiveness training (Miller, 1973). Personality disorders that may have (or may not have) preceded the drug dependence often disappear after the drug dependence is eliminated (Jellinek, 1962). Bandura (1969) points out that changes in a person's behavior can exert an enormous influence for change in his environment; abstinence provides positive experiences with interpersonal relationships, work, etc., which, in turn reinforce continued abstinence.

Bandura has used aversive conditioning with alcoholics and reports a success rate of 40-60 percent; he also reports success rates of 30-83 percent for other researchers in aversive conditioning. Bandura further points out that, obviously, for many people aversive conditioning is not enough. He proposes a "multiform treatment of alcoholism," a system which could be applied to all types of drug dependent persons. Bandura's multiform treatment program includes, in addition to aversive conditioning: (1) development of behavioral competencies--this includes interpersonal skills, vocational training, education, and other behaviors which will provide gratifications; (2) modification of self-

reinforcement patterns--this is aimed at reducing the typically inordinately high expectations that alcoholics have for themselves and providing realistic expectations which will lead to more gratification and less need for alcohol; (3) desensitization of stress provoking situations--therapy such as relaxation training can be applied to alcoholics who drink to avoid unpleasant stimuli; and (4) a social-systems approach to treatment of widespread alcoholism--geared to persons having few personal resources such as Skid Row alcoholics.

It appears that detoxification and self-knowledge are not the most important task for the person involved in drug abuse; the most trying aspect of recovery is avoiding the chemical previously abused. For this purpose Bandura's proposed approach would provide important and possibly crucial new skills for the drug dependent person. Only new social skills, new attitudes, new or revitalized relationships will provide the patient with the gratification which he thought he could only obtain from chemical substances.

Herman et al. (1976) also emphasize the need for supplementary treatment with the "social skills of abstinence." They prescribe role-playing with videotaped feedback for training patients in new behaviors. Little other research is in the literature in assessing the social skills and behavioral deficits of drug dependent people. This is a necessary preliminary step in developing multiform treatment programs aimed at providing new life styles for addicts.

Social Skills Training

In 1949, Salter developed the first assertiveness training method, which he termed "excitatory procedures." He encouraged patients in the use of "feeling talk," "facial talk," expressing contradictory opinions, agreeing with compliments, using "I" statements, and improvising new behaviors. Assertiveness training is gaining wide-spread acceptance as an important treatment method for many types of disorders. Assertive behavior is defined as behavior which "enables a person to act in his own best interests, to stand up for himself without undue anxiety, to express his honest feelings comfortably, or to exercise his own rights without denying the rights of others" (Alberti and Emmons, 1970, p. 2). This definition makes the important distinction among passive, assertive, and aggressive behaviors. Based on the observation that many clients present problems involving a deficit of interpersonal skills, assertiveness training is aimed at providing skills that enable the individual to express anger, hostility, warmth, and other feelings in a socially acceptable manner.

Wolpe and Lazarus (1966) described assertiveness training as a treatment method to replace "unadaptive anxiety responses"--responses which prevent the expression of genuine feeling. Hersen et al. (1973a) point out that Wolpe's view implies that unassertive individuals possess appropriate assertive responses the expression of which are blocked by anxiety. Recent research indicates that "for many of the

patients who fail to evidence appropriate interaction in interpersonal settings, the relevant verbal and nonverbal responses have never been learned" (Hersen et al., 1973a, p. 505). So the aim of assertiveness training becomes the teaching--by a variety of techniques such as role-modeling, coaching, videotape feedback, and rehearsal--of the specific behaviors involved in an assertive response.

Much of the clinical research on assertiveness has focused on the effects of a variety of assertiveness training techniques on many groups of subject populations (Edwards, 1972; McFall & Marston, 1970; Otis & Rainey, 1975). Some researchers have focused on developing paper and pencil measures of assertiveness (Bates & Zimmerman, 1971; Galassi et al., 1974; Rathus, 1973; Wolpe & Lazarus, 1966), while others have provided behavioral measures of assertiveness (Eisler et al., 1973; McFall & Marston, 1970).

Eisler, Hersen, and Miller have performed investigations of the specific components of assertive behaviors and have examined the effects of different methods of acquiring assertive behaviors. In 1973, these workers introduced their Behavioral Assertiveness Test which consists of 14 interpersonal situations in which an assertive response is required. The test was administered to thirty patients and then rated by judges on verbal and nonverbal aspects of assertiveness. Subjects rated high in overall assertiveness displayed longer responses, louder speech, shorter latency periods, more affect, less compliance, and more demands for change in others (Eisler et al., 1973). In addition, these authors

have examined the impact of several treatment techniques on assertive behaviors (Eisler et al., 1973; Eisler et al., 1975; Hersen et al., 1973b).

Hersen et al. (1973a) conclude that assertiveness training is an effective treatment modality for persons having many different types of disorders and interpersonal problems, the common element in these patients being a lack of social and interpersonal skills. However, they point out that empirical examination of the components of assertive behavior and therapeutic outcome studies are needed. They also assert the need for the study of positive assertive behaviors rather than the typical investigation of the expression of negative feelings.

Although assertive behaviors associated with general interpersonal situations are now being investigated and treatment programs are incorporating such approaches (Cheek et al., 1971), few studies involve the investigation of other more specific interpersonal social skills. Social skills training related to verbal expression of feelings (Green & Murray, 1975) and to dating behavior in college students (McGovern et al., 1975; Twentyman & McFall, 1975) have been explored but interpersonal behavior relevant to other populations, such as drug abusers, have not been studied. Rimm and Masters (1974) point out the need to define behavioral deficits in treatment populations and to develop the appropriate specific training techniques.

The most compelling finding of this review of treatment techniques for drug-dependent persons is that most of the

currently-utilized methods fail; the alcoholic usually returns to alcohol abuse and the heroin addict to heroin abuse. When the addicted person seeks treatment, he can be easily detoxified within a short time; however, more likely than not, he will return to his addiction within a few months. In the past our response has been to label the drug abusers as "psychopaths" or "personality disorders," meaning that, regardless of the brilliance of the psychotherapist or the insights gained by the patient, the client continued to engage in the behavior for which he sought treatment in the first place. Confronted with this disruptive behavior and apparent lack of success, most clinicians choose not to work with people having drug dependencies. Instead we give them the negative and somewhat punitive name of "psychopath," a label which implies some vague and inherent defect which renders them unamenable to treatment.

Faced with our profound lack of success with these persons, is it not just as reasonable to assume simply that our treatment does not suit them? Instead of ferreting out personality factors to explain the lack of treatment success, why not examine the treatment methods that have shown some success and alter existing methodologies to provide these helpful aspects?

As seen in the previous discussion of treatment methods, programs which provide new behaviors and experiences to replace maladaptive behaviors or to fulfill certain deficits in behavior are moderately successful; programs aimed at intellectual understanding of personality dynamics, i.e.,

the traditional psychotherapies, are not successful generally. Bandura's (1969) description of the "multiform treatment of alcoholism" seems to be a comprehensive and appropriate plan for the treatment of drug dependencies. Described above, Bandura's proposed treatment program has five major components: aversive conditioning, development of new behavioral competencies, modification of self-reinforcement patterns, desensitization of stress-provoking situations, and the development of new social systems for patients having meager personal resources.

It appears that the continuing problem that people experience after treatment for drug dependencies is the lack of adequate coping behaviors, new attitudes toward themselves and others, and new means of deriving a sense of pleasure and fulfillment from their lives. Detoxification from alcohol and other drugs is attainable without an unbearable amount of discomfort and can be easily accomplished in a hospital setting. In other words, stopping alcohol or heroin use is not the major problem encountered by the patient; his major problem is avoiding the return to the drug. In attaining this, treatment programs must provide not only detoxification and self-knowledge for the patient but also new ways of handling problems previously avoided by the use of drugs. In short, the social skills of abstinence must be provided. In developing such a treatment regime, a logical and necessary first step is to define the behavioral deficits for drug dependent persons.

In reviewing some of the traits that personality studies have identified in alcoholics and heroin addicts, one finds most common in both groups interpersonal anxiety, low frustration tolerance, inability to express emotions appropriately, especially anger, and feelings of inadequacy. Except for low frustration tolerance, these traits are also common among persons who are unassertive. These feelings or traits can readily be viewed as deficits in interpersonal skills. Assertiveness training can provide these behaviors, reduce anxiety, and increase feelings of self worth. So, one question to be explored is the extent to which drug dependent persons lack interpersonal social skills generally associated with the term assertiveness. If they do, one method of providing the skills necessary to avoid returning to drug use would be assertiveness training. This training would provide new ways of relating to others which would replace the avoidance behavior involved in drug use and which would provide gratifications previously obtainable only with the drug.

In exploring the behavioral deficits in drug dependent persons and developing a picture of the concomitant social skills of abstinence, behaviors directly related to drug use also must be examined. When the recovered alcoholic or addict leaves treatment, he returns, if not to the environment that helped create the addiction, at least to an environment full of opportunities for drug use and of recollections of past experiences with drugs. Interpersonal situations involving the opportunity for drug use present a special problem for

the ex-abuser. Herman et al. (1976) emphasize the diagnostic and therapeutic necessity of identifying the social skills involved in the continuance of decreased drug use. And so, a second phase in arriving at the social skills of abstinence will be to identify behavioral deficits specifically related to situations involving the opportunity for drug use. Once these behaviors are identified, then treatment methods providing the interpersonal social skills of abstinence can be developed.

The study reported here involves an investigation of the general interpersonal social skills and the social skills specifically related to drug use in groups of addicted and non-addicted subjects in a Veterans Administration Hospital (Miami, Florida). Subjects' responses to enacted social scenes (The Behavioral Assertiveness Test, Eisler et al., 1973) were videotaped and scored on various components of assertive behavior. A measurement technique involving social scenes directly related to alcohol and drug use was developed (The Social Skills of Abstinence Test) and similarly administered and scored. In addition, subjects' subjective reports of assertive behavior and judges' ratings of their assertive behavior were compared. The aim of this study was two-fold: to determine some of the behavioral deficits of alcoholics and heroin addicts and to develop a behavioral measure of interpersonal social skills related to opportunities for drug use.

METHOD

Subjects

The subjects were 46 male veterans (seven groups) at the Miami, Florida, Veterans Administration Hospital. The two recently-addicted groups, group 1--heroin addicts and group 5--alcoholics, were each comprised of six consecutive admissions to the hospital's inpatient or outpatient alcohol and drug treatment programs. These subjects were tested seven days after admission in order to minimize toxic drug effects. Sample pools for the other experimental groups were identified from hospital records; the subjects were contacted in a random order and asked to volunteer for the study. Once each subject group was complete, no further volunteers were sought for that group. For all groups, subjects with a history of psychosis or evidence of brain damage were excluded.

Group 1: Heroin addicts (N=6). This group consisted of patients applying for and accepted into treatment in an alcohol and drug dependency treatment program. Heroin addiction was determined by the diagnosis of heroin dependency by two physicians. Diagnosis was based on social history, presence of withdrawal symptoms, and physical evidence of recent I.V. use of heroin.

Group 2: Ex-heroin addicts (N=6). This group was comprised of outpatients diagnosed as dependent on heroin, who were detoxified from heroin, who were not receiving methadone maintenance treatment, and who had been drug-free for six months or longer. Regular urine tests are conducted at the clinic; therefore, abstinence was determined by the persistent absence of morphine in the urine samples.

Group 3: Successful methadone maintenance clients (N=6). This group consisted of outpatients diagnosed as dependent on heroin by two physicians, who had been receiving methadone maintenance treatment for six months or longer, and who had one or less urine sample positive for morphine in six months.

Group 4: Unsuccessful methadone maintenance clients (N=6). This group consisted of outpatients diagnosed as dependent on heroin by two physicians, who were receiving methadone maintenance treatment, and who had shown five or more urine samples positive for morphine in a six month period.

Group 5: Alcoholics (N=6). This group includes alcoholics applying for and accepted into treatment in an inpatient or outpatient alcohol and drug treatment program. Diagnosis of alcohol dependence was based upon the assessment of two physicians.

Group 6: Ex-alcoholics (N=7). This group was comprised of outpatients who were diagnosed as alcohol-depen-

dent, who had been abstinent for six months or longer, and who were receiving antabuse therapy.

Group 7: Comparison group (N=9). This group consisted of volunteers from three sources. Three of these subjects were general medical-surgical inpatients, three were general medical-surgical outpatients, and three were recently admitted to a Human Relations Laboratory program. This last subgroup was chosen because of its diagnostic similarity to alcohol and drug patients; both the Human Relations Laboratory patients and the alcohol and drug patients were psychiatric patients having diagnoses of neurotic or behavior disorders but not psychotic disorders.

Measures

(1) The Assertion Inventory (Gambrill and Richey, 1975). Lack of assertive behaviors has been identified as a problem in a broad range of psychiatric categories. Assertiveness is defined as "behavior which enables a person to act in his own best interests, to stand up for himself without undue anxiety, to express his rights without denying the rights of others" (Alberti and Emmons, 1970). A lack of assertive behaviors, then, involves a deficit in interpersonal skills.

Gambrill and Richey have developed a 40-item questionnaire (see Appendix A) in which the respondent indicates both his degree of discomfort and his probability of response for each item. Eight categories of behavior are represented in the inventory: (a) turning down requests, (b) expressing personal limitations, (c) initiating social

contacts, (d) expressing positive feelings, (e) handling criticism, (f) differing with others, (g) assertion in service situations, and (h) giving negative feedback. The subjects marked each item for degree of discomfort on a 5-point continuum and also marked each item for response probability on a similar scale. Scores were determined by adding response values for each criteria, so that every subject had a score for discomfort and a score for response probability.

(2) The Behavioral Assertiveness Test (Eisler, Hersen, and Miller, 1973). Designed to simulate actual life situations, the Behavioral Assertiveness Test consists of 14 test situations. In this study, 12 of these scenes were administered to each subject (see Appendix B); one-half of the scenes involved a female stimulus person and one-half involved a male stimulus person. The subjects' responses to the scenes were videotaped.

(3) The Social Skills of Abstinence Test (see Appendix C). For this study, eight scenes involving drug use were developed and administered along with the general assertiveness scenes. The alcohol groups and the comparison group were administered scenes related to alcohol use, while the heroin groups were administered scenes related to heroin use.

Procedure

All testing was carried out at the hospital in the same videotaping studio. All equipment was set up in the same

manner for each subject. The Behavioral Assertiveness Test scenes and the Social Skills of Abstinence scenes were administered to each subject according to the procedure set down by Eisler et al. (1973). The subject entered the videotape studio containing a video camera, a microphone, and two comfortable chairs, and was seated across from the female accomplice. A tape recording of the instructions delivered by a male narrator was presented to each subject via intercom (see Appendix D, Part 1). Basically, the subject was instructed that he would hear a narrator describe a social scene to him; after the scene was described, the stimulus person would say something to him. After the stimulus person delivered his cue, the subject was asked to respond as if he were actually in that situation. Following the instructions, two practice scenes were administered and then four general scenes and four drug-related scenes were presented in an alternating order. After the tenth scene was administered, a male stimulus person replaced the female stimulus person and further instructions were delivered via intercom (see Appendix D, Part 2). After these instructions, the two practice scenes were administered, and then four general and four drug-related scenes were presented in an alternating order. All instructions and narrative descriptions of the scenes were tape-recordings by a male reader so that the similarity of stimulus scenes could be preserved for each subject.

The Assertion Inventory was administered individually to each subject following the enacted behavioral scenes.

Scoring

The judges were three hospital employees, a psychiatric nurse, a psychology technician, and a student nurse (two females, one male). None of the judges had any previous contact with or knowledge of any subject. The rating sessions were held in the videotape studio. Before the ratings were begun, the judges were given detailed instructions for rating (see Appendix E) both verbally and in written form. Next, two practice sessions were administered which involved rating two sample videotapes. The videotaped scenes were then rated independently; each subject's performance on all 20 scenes was presented in its entirety but the order of presentation of subjects was randomized. The judges rated each response on four aspects of assertive behavior and one category of "believability" (descriptions provided to judges are found in Appendix E). The following variables were scored by each judge for each scene:

(1) request for new behavior--rated as either occurring or not occurring;

(2) compliance content--each response was rated for compliance, implied noncompliance, or noncompliance;

(3) assertive affect--rated on a 5-point scale from flat and unemotional (1) to full and lively affect (5);

(4) overall assertiveness--rated on a 5-point scale from unassertive (1) to fully and appropriately assertive (5);

(5) believability--a subjective rating of the judges own impression made on a 5-point scale.

In addition, the following timed components were recorded for each response:

(6) duration of eye contact--amount of time the subject looked at the stimulus person during his response;

(7) response latency--time elapsed between termination of stimulus cue and the initiation of the subject's response;

(8) duration of reply--time elapsed during the subject's response, pauses of three seconds or greater being omitted.

The Assertiveness Inventory was scored by adding the subjects' responses on each dimension to arrive at two scores: discomfort score and response probability score.

RESULTS

A multivariate analysis of variance (MANOVA) was completed for the judges' ratings (Requests for New Behavior, Compliance, Assertive Affect, Overall Assertiveness, and Believability) and tested using the Hotelling-Lawley Trace ($F=21.4$; $p \leq .0001$). A MANOVA of the timed components (Response Latency, Duration of Reply, and Eye Contact) also was completed and tested ($F=16.4$; $p \leq .0001$). In analyzing the results, separate univariate analyses (ANOVA) were used for the eight independent variables (Table 1 and Table 2). Consistent significant effects can be seen for group, scene type, rater, and stimulus person. An extension of Duncan's Multiple Range Test (Kramer, 1956) was used to determine the specific significant differences among means (Appendix F) which will be described below.

The MANOVA of the demographic characteristics of the subjects was significant (Hotelling-Lawley Trace: $F=5.4$; $p \leq .0001$), and the ANOVA revealed significant group differences in age, race, years of addiction, years of abstinence (i.e., longest period of abstinence in five years), and use of non-prescribed drugs (Table 3 and Table 4). There was no difference in education, number of prior treatment episodes, employment, and marital status. The two variables identified by the Assertion Inventory, discomfort and response probability, showed no difference among groups.

Table 1

Analysis of Variance for Rater Data

Dependent Variables	Independent Variables: New Behavior	Compliance	Affect	Assertiveness	Believability
Model Sum of Squares	68.7	183.3	413.5	636.3	441.2
Error Sum of Squares	530.9	1661.1	1947.9	3040.9	1997.2
Source Sum of Squares					
Group	4.5*	65.2*	157.4*	157.0*	162.6*
Scene Type	53.8*	15.4*	10.9*	79.9*	43.2*
Stimulus Person	.3	20.7*	34.1*	48.9*	14.1*
Rater	2.9*	7.2	110.5*	187.5*	111.8*
Group-Scene Type	2.4	59.9*	23.3*	118.6*	11.0
Group-Stim. Person	1.7	7.3	4.1*	7.9	7.1
Sc. Type-Stim. Person	1.7	2.5	1.0	9.5	3.9
Rater-Group	.4	3.5	55.8*	15.2	65.8*

*Significant at the $P \leq .001$ level.
Note. Model df = 39; Error df = 2717; Total df = 2756.

Table 2

Analysis of Variance for Timed Components

Dependent Variables	Independent Variables Eye Contact	Latency	Duration
Model Sum of Squares	2640.9	474.0	7082.0
Error Sum of Squares	26162.3	4480.2	73356.9
Source Sum of Squares			
Group	919.4*	149.5*	1774.3*
Scene Type	1183.7*	84.7*	2013.0*
Stimulus Person	43.0	42.5*	1344.1*
Group-Scene Type	224.3*	59.3*	877.1*
Group-Stim. Person	221.1	44.9*	698.1*
Sc. Type-Stim. Person	49.3	92.9*	375.3

*Significant at the $P \leq .001$.
Note. Model df = 21; Error df = 2735; Total df = 2757.

Table 3

Demographic Data for Subject Groups 1-4

Source	Groups 1 M	1 s.d.	2 M	2 s.d.	3 M	3 s.d.	4 M	4 s.d.
Age	26.3	2.3	30.1	4.2	28.5	2.2	29.3	2.2
Race[a]	1.5	.5	1.1	.4	1.5	.5	1.8	.4
Years Addicted	5.5	2.4	3.6	1.5	5.3	1.8	4.6	2.3
Education	12.5	1.2	10.8	2.2	12.0	0.0	12.5	.8
Prior Treatment	1.6	1.3	2.0	3.4	1.1	1.4	2.6	2.1
Employment	4.1	.9	3.6	1.6	4.0	.8	2.8	2.0
Non-prescribed Drugs	2.1	.4	1.6	.5	1.5	.8	2.0	.6
Years Abstinent	.3	.8	4.0	1.2	1.3	.5	.1	.4
Marital Status[b]	2.1	.9	1.8	.9	1.8	.9	2.3	.8
Discomfort	102.1	25.6	64.1	13.0	89.5	22.2	104.3	37.2
Response Probability	98.3	23.6	87.0	12.3	100.0	22.1	97.3	14.4

Note. Model df = 6; Error df = 39; Total df = 45.
[a]1 = White, 2 = Black.
[b]1 = single, 2 = married, 3 = divorced.

Table 4

Demographic Data for Subject Groups 5-7 and Overall Mean Squares and Significance Levels

	Groups							
	5		6		7			
Source	M	s.d.	M	s.d.	M	s.d.	MS	p
Age	38.8	8.3	55.0	11.9	36.1	12.9	654.7	.0001
Race[a]	1.0	.0	1.0	.0	1.3	.5	.5	.0090
Years Addicted	6.3	3.7	8.0	5.5	.0	.0	50.4	.0002
Education	13.0	1.7	13.1	2.0	12.5	1.4	3.6	.1903
Prior Treatment	2.3	4.7	2.2	2.5	.0	.0	6.4	.4541
Employment	4.0	1.6	2.4	2.3	3.5	2.1	2.7	.5410
Non-prescribed Drugs	.5	1.2	.0	.0	.8	.9	4.1	.0001
Years Abstinent	.5	.2	1.4	.7	5.0	.0	26.7	.0001
Marital Status[b]	.8	.7	1.4	.5	1.6	1.0	.5	.6053
Discomfort	99.3	32.6	95.2	26.2	98.0	29.8	1136.9	.2140
Response Probability	106.1	27.8	104.7	24.4	99.6	12.9	238.0	.7331

Note. Model df = 6; Error df = 39; Total df = 45.
[a]1 = White, 2 = Black.
[b]1 = single, 2 = married, 3 = divorced.

In interpreting the results of this study, special note must be taken of the variation in rater reliability (Table 5). Although the ratings were found to be significantly correlated using both the Pearson r and the Spearman rho statistics (df=919; $p \leq .01$), the correlations for Assertive Affect and Believability are low.

The results of the analyses can best be presented by examining the performance of each experimental group (Tables of Duncan's Tests and probabilities can be found in Appendix F).

Group 1: Heroin Addicts

This group of subjects had the youngest mean age, being significantly younger than the two alcohol groups (5 & 6). They also reported using more non-prescribed drugs than any other group. On other overall analyses they frequently fell in the middle of the rank-order; in requests for new behavior, they were significantly different only from the successful methadone maintenance clients (group 3), who made the least requests; they were more compliant than the successful methadone maintenance subjects, the ex-alcoholics, and the ex-heroin addicts (groups 3, 5, 2 respectively); they showed less affect than both abstinent groups (2 & 6), a shorter response latency than the successful methadone maintenance group (3), less eye contact than the ex-heroin addicts (2); and they were less believable than the alcoholics and the control group (5 & 7).

Table 5

Inter-rater Reliability

Pearson r	Rater 1 w. Rater 2	Rater 1 w. Rater 3	Rater 2 w. Rater 3
Requests for New Behavior	.75	.72	.74
Compliance	.87	.83	.81
Assertive affect	.46	.45	.40
Overall Assertiveness	.74	.69	.73
Believability	.26	.33	.32

Spearman rho	Rater 1 w. Rater 2	Rater 1 w. Rater 3	Rater 2 w. Rater 3
Requests for New Behavior	.75	.72	.74
Compliance	.85	.80	.77
Assertive affect	.46	.44	.40
Overall Assertiveness	.72	.69	.73
Believability	.23	.35	.30

Note. All values significant at the $P \leq .01$ level.

For the subject groups that were or had been addicted to alcohol or heroin, the comparison between performance on the general interpersonal scenes (Behavioral Assertiveness Test) and the drug-related interpersonal scenes (Social Skills of Abstinence Test) was an important one. The comparisons between the general scenes (scene type 1) and the alcohol-drug scenes (scene type 2) for each subject group are given in Table 6. When comparing drug scenes with general scenes for the heroin addicts, significant differences were found for every experimental variable: the heroin addicts made fewer requests for new behavior, were more compliant, were less affective, and less believable; they showed a decrease in overall assertiveness, eye contact, and duration of reply, and an increase in response latency.

Group 2: Ex-heroin Addicts

In the demographic variables, this group was significantly younger than the ex-alcoholics, had fewer total years of addiction than either alcohol group, and used more non-prescribed drugs than the two alcohol groups and the control group (5, 6, & 7). On the experimental variables, this group consistently scored significantly better than most other groups. They were the least compliant and showed the most affect, significantly outscoring groups 1, 3, 5, and 7 (heroin addicts, successful methadone maintenance clients, alcoholics, and control subjects) on these two variables. In requests for new behavior and response latency, their scores were second only to the control subjects and greater

Table 6

Group Differences From General Scenes to Drug Scenes With t Scores

Variables	Groups 1	2	3	4	5	6
Requests for New Behavior	↓7.15[a]	↓6.39	↓4.36	↓5.59	↓6.20	↓6.20
Compliance	↓5.32	2.78	2.39	.36	↑7.40	↓3.43
Assertive Affect	↓3.64	1.86	↓3.75	2.50	3.07	1.03
Overall Assertiveness	↓6.38	2.30	↓4.43	1.94	↓8.40	1.78
Believability	↓6.06	2.31	2.08	↓3.51	.24	↓4.31
Eye Contact	↓5.67	2.00	↓4.41	↓5.75	↓8.72	.40
Latency	↓5.43	1.75	2.26	↑4.98	.51	.75
Duration	↓3.20	2.25	↓5.20	1.41	↓5.05	.36

Note. Difference indicated in direction of change from general scene to drug scene ($df = 10$; $t = 3.169$; $p \leq .005$).

[a]Subjects in this group showed a decrease in requests for new behavior in alcohol-drug scenes when compared with general scenes; t value shown is 7.15.

than those for groups 3, 5, and 6 (successful methadone maintenance clients, alcoholics, and ex-alcoholics) for the former variable and less than both methadone groups (3 & 4) for the latter. They were more believable than the controls and had the highest scores in eye contact and overall assertiveness, being significantly different for these two variables from all other groups except the ex-alcoholics (6).

On the drug scenes, this group showed more requests for new behavior than in the general scenes and no difference in any other variable (Table 6).

Group 3: Successful Methadone Maintenance Clients

This group was significantly younger than the two alcohol groups and showed more use of non-prescribed drugs than the two alcohol groups and the control group (5, 6, & 7). They showed the fewest requests for new behavior, the least eye contact, and the longest response latency. For new behavior requests, their scores were significantly lower from the two heroin groups and the control group (1, 2, & 7); they had less eye contact than the heroin addicts, ex-heroin addicts, ex-alcoholics, and controls (1, 2, 6, & 7) and their response latency was significantly longer than any other group. Their responses were shorter than those of the alcoholics and the controls (6 & 7).

In the drug scenes, they showed more requests for new behavior, less affect, shorter responses, and lower overall assertiveness than in the general scenes. There was no dif-

ference for these scenes in compliance, response latency, and believability (Table 6).

Group 4: Unsuccessful Methadone Maintenance Clients

These subjects were significantly younger and had fewer years of addiction than the ex-alcoholics (6). They used more non-prescribed drugs than the two alcohol groups and the control group (5, 6, & 7) and they reported less abstinence in 5 years than any other group (significantly less than ex-addicts, ex-alcoholics, and successful methadone maintenance clients). They had less eye contact than all groups except the successful methadone maintenance clients (3), shorter response latency than group 3, shorter duration of reply than alcoholics and controls (6 & 7), and less overall assertiveness than the ex-addicts and the ex-alcoholics (2 & 6).

In the drug scenes, this group showed increased requests for new behavior, longer response latency, and less eye contact (Table 6).

Group 5: Alcoholics

This group was significantly older than the heroin addicts and the successful methadone maintenance clients (1 & 3). They showed fewer requests for new behavior and a shorter response latency than the successful maintenance clients. They were the most compliant of all subject groups, being significantly more compliant than the ex-heroin addicts,

the unsuccessful methadone maintenance clients, and the ex-alcoholics (2, 4, & 6). They were less assertive than the ex-addicts, the ex-alcoholics, and the controls (2, 6, & 7).

In the alcohol scenes they displayed more requests for new behavior, more compliance, less eye contact, and shorter duration of reply than in the general scenes. They were also rated as less assertive overall in the drug scenes.

Group 6: Ex-Alcoholics

These subjects were significantly older than all other subjects and reported using no non-prescribed drugs. They were less compliant than the heroin addicts, the unsuccessful methadone maintenance clients, the alcoholics, and the controls (1, 3, 5, & 7). They were more assertive and showed more affect than all groups except the ex-heroin addicts and the controls (2 & 7). They had more eye contact than the two methadone groups and the alcoholics (3, 4, & 5).

In the alcohol scenes they showed significantly less compliance and more requests for new behavior; they were also less believable.

Group 7: Comparison Group

The control group did not differ significantly from any other groups on the demographic analysis except in their lack of use of non-prescribed drugs. They showed more requests for new behavior than did the two alcohol groups and the successful methadone maintenance clients (5, 6, & 3);

they were more compliant than the ex-alcoholics, the ex-addicts, and the unsuccessful methadone maintenance clients (6, 2, & 4). They had more eye contact than the two methadone groups (3 & 4) but less than the ex-addicts (2). They had a shorter response latency than all groups except the ex-addicts and alcoholics (2 & 6). They were more believable than all other groups except the alcoholics (5); they showed less affect than the ex-addicts (2) but more than the successful methadone maintenance clients (3). They were seen as less assertive than the ex-addicts (2) but more assertive than the heroin addicts, the successful methadone clients, and the alcoholics (1, 3, & 5).

On the alcohol scenes, they displayed less eye contact and shorter duration of speech but a longer response latency than on the general scenes.

Significant stimulus person effects were found for all subjects. All subjects were significantly less compliant, more affective, and more assertive overall with the male stimulus person than with the female. They also had a longer response duration, shorter latency period, and they were more believable with the male. There was no difference in eye contact with the male and female stimulus persons.

In addition to the previously presented analyses, a cannonical correlation analysis was completed using two sets of data. The first set comprised the variables of the Assertion Inventory (Response Probability and Discomfort)

and the second set consisted of the judges' ratings of assertive behavior (Request for Behavior, Compliance, Assertive Affect, Overall Assertiveness, and Believability). Two cannonical correlation coefficients were calculated yet only the first was significant ($p \leq .0001$).

Next, it was of interest to calculate the correlation of each cannonical variate for a set with the individual variables within that set. These correlations indicate the contribution of each variable to the composite cannonical variate and aid in the interpretation of the cannonical variates: Assertion Inventory = $(.506^2 + .999^2) \div 2 = .627$; similarly, the judges' ratings = .088. Thus 63 percent of the variance of the Assertion Inventory is accounted for by the first cannonical variate, while only 8.8 percent of the variance of the judges' ratings set is accounted for by the first cannonical variate.

In addition to using correlation within a set to explain the variation, we can examine the relationship between cannonical variates in one set and individual variables in the other. A very small relationship exists between the two sets of variates, the Assertive Affect variate for the raters (1, 2, & 3) is most related to Response Probability in the first set (values are -.096, -.177, and -.141 respectively). It would appear that the Assertion Inventory is most related to the dimension measured by the raters when they rate the Assertive Affect category. The overall proportion of variance in the rater set accounted for by the first cannonical variate of the other set is .68 percent,

while the proportion of variance in the Assertion Inventory accounted for by the rater set is 4.9 percent.

In sum, then, given the Assertion Inventory variables and the judges' ratings, the proportion of variance "in common" is only 7 percent ($r^2=.2697^2$). However, 62 percent of the variance in the Assertion Inventory is accounted for by the first cannonical variate.

Stewart and Love (1968) demonstrate the calculation of a redundancy index to summarize the overlap between the two sets of variables, Assertion Inventory and the judges' ratings. The redundancy in the judges' ratings, given the Assertion Inventory data, is (.627)(.088)=.055; while the redundancy in the Assertion Inventory, given the judges' ratings is (.088)(.088)=.007.

In conclusion, it may be seen that the variables in each domain are largely independent and the two sets of measures are nearly mutually exclusive.

DISCUSSION

Several aspects of the study and of the findings of the study must be taken into account in interpreting the results. First is the significant difference in age and race among some groups. Although these differences were expected, they indicate caution in comparing the performance of some of the experimental groups especially in comparing alcohol subjects with heroin subjects. The ex-alcoholics were older than all other groups and the alcoholics were older than the addicts and one methadone group. The two alcohol groups were comprised of all white subjects, while the other groups were 50 percent blacks. These age and race differences between alcoholics and heroin addicts are consistent with data on substance abuse patients at the V.A. Hospital from which the sample was drawn. Social researchers at that hospital report significant age and race differences between the two groups, but no other differences are so consistently found (Data on Substance Abuse Patients, 1976). The nature of the drugs themselves and the social attitudes about them can help explain these findings. Being socially acceptable and not rapidly addicting, alcohol usually takes a long time to take its toll in interpersonal relationships and physical dependency. Hence, alcoholics seeking treatment are usually 40-60 years of age and they usually report having been

drinking heavily for many years. On the other hand, heroin use is not usually tolerated socially except within the ghetto subculture. There, the young man experimenting with drugs may begin using heroin and become quickly and predictably addicted. Once addicted, he may apply for treatment at which time he probably will be 21-30 years of age and addicted for a much shorter time than the alcoholic.

A second confounding result was the significant rater effect found in the analysis of variance for every independent variable except Compliance. Here, the variability appears to be within the raters themselves. Although the raters were significantly reliable (Table 5), the ANOVA results must be considered cautiously on those variables where inter-rater reliability was low, Assertive Affect and Believability.

A final caveat must be given for the significant overall difference found in subjects' responses to the sex of the stimulus person. This finding is confounded by the effect of the procedure, since all of the female stimulus person scenes were delivered before the male stimulus person scenes. So what was found here very well may be an order effect rather than an effect due to the sex of the stimulus person.

The most important finding of this study was the greater assertiveness found in the abstinent groups. Even more interesting is the fact that the group differences found consistently singled out the ex-heroin addicts as the best performers. They had the most desireable scores on almost every component of assertive behavior, and they performed no

differently in the drug scenes than in the general scenes except to request more behavior changes from the stimulus person, a positive difference. No other group showed this congruency in performance from general to drug scenes. The other formerly addicted group, the ex-alcoholics, were second only to the ex-addicts in overall assertiveness, affect, and eye contact. In the alcohol scenes they made more requests for new behavior and were less compliant than in the general scenes and, in fact, were less compliant than any other group in the drug-related scenes.

There are several possible explanations for the greater assertiveness found in the ex-heroin addicts and the ex-alcoholics. One obvious possibility is that they were always assertive individuals who, at one point in their lives, had been addicted to a chemical substance. Another explanation is that they were simply sensitive and skilled performers able to formulate "good" responses in the experimental setting. But when comparing these two groups with the heroin addicts, the alcoholics, and the methadone maintenance clients, the sampling characteristic that is significantly different among all of them is period of abstinence. The ex-heroin addicts had been abstinent longer than any other group; the ex-alcoholics had been abstinent significantly longer than all groups except the ex-heroin addicts and the successful methadone clients. One might postulate that the ex-addicts and ex-alcoholics found it necessary to develop assertive behaviors, especially related to drug use, in order to remain abstinent. Or, conversely, one could

speculate that assertive individuals are more likely to remain abstinent.

The only other group to score in a consistent fashion was the successful methadone maintenance clients. They were the least affective and the least believable; they had less eye contact and the longest response latency of any group and made the fewest requests for new behavior. By comparison the unsuccessful methadone maintenance clients also scored low in affect and had long response latencies, but they were seen as significantly more assertive than the successful methadone maintenance clients. The relatively low scores on the components of assertive behavior found in the successful methadone maintenance clients is paradoxical--they were abstinent from heroin, just as the ex-addicts were, but they consistently scored low while the ex-addicts consistently performed high on the various components. If this finding were the result of a drug effect due to the methadone, the unsuccessful methadone maintenance clients would be expected to display the same significantly low scores, but they did not. This finding is an intriguing one since methadone maintenance is currently a widely-used alternative treatment to detoxification for identified heroin addicts; and the disparity between methadone maintenance clients who continue to use heroin and those who do not is quite interesting. Perhaps being a successful methadone maintenance client requires a passive and compliant individual who is willing to conform to the demands of a drug program in order to receive methadone; or perhaps the

lack of assertive behaviors is one reason why these subjects must depend on methadone, while the ex-addicts have the interpersonal behaviors necessary to maintain abstinence without the methadone. Certainly the methadone maintenance group is the group most in need of training in assertive interpersonal behaviors.

Although there were no group differences in the Assertion Inventory, this measure appears to be unrelated to the components of assertive behavior for which the videotaped scenes were scored. Perhaps the self-report inventory and the judges' ratings each were measuring different dimensions of assertive behaviors; the questionnaire revealed how the subject saw himself while the judges' ratings showed how the subject was seen by others. This lack of congruity between self-image and perceptions of others may be common in heroin addicts and alcoholics (Chein, 1964; Clinebell, 1956) as it is in other psychiatric categories.

Another reason for the discrepancy between self-reported assertiveness and judges' ratings could be in the difference between knowing appropriate responses and actually emitting them. Schwartz and Gottman (1974) found that high assertive and low assertive subjects did not differ in knowledge of appropriate assertive responses nor in the performance of these behaviors under laboratory conditions. But when confronted with a situation that appeared to be "real life," the low assertive subjects did not perform assertively. The authors attributed this to the group differences in "internal dialogues," i.e., the subjects' cognitions, images and

negative self-attitudes. So, what was found in this study could amount to a discrepancy between cognitions and self-image when compared to actual performance.

Another point to consider is the qualitative aspects of each type of measure. The videotaped scenes were comprised of situations that demand negative assertions, i.e., the subject must turn down, rebuff, or confront the stimulus person. The Inventory, on the other hand, has eight categories of behavior, only a few of which involve negative assertion. Bellack et al. (in press) reports a recent study in which performances and ratings on positive assertion scenes and negative assertion scenes were compared. He found that the components important to judges' ratings varied considerably according to the type of response required, positive or negative. Bellack concluded that both situation-specific and response-specific definitions of behaviors are necessary to analyze adequately any specific social skill.

Interestingly, there were no differences among groups on the Assertion Inventory while there were significant group differences in the behavioral measures. Perhaps a pencil and paper measure of so complex a behavior is simply not sufficient. Further study in comparing self-reports of assertiveness with actual behaviors in situations demanding assertion appears important since, in this study at least, the measures are practically independent of each other.

Interestingly, the subjects as a whole were less assertive with the female experimenter than the male experimenter. As

previously pointed out, this could be the result of the order in which the scenes were presented, however, the result was so consistent it appears to be due to greater overall difficulty in handling situations involving negative assertions with women.

One goal of this study was to develop a behavioral measure of some of the behaviors involved in avoiding the use of alcohol or other drugs, the Social Skills of Abstinence. It was found that all groups of subjects in any form of drug or alcohol abuse treatment were less assertive in scenes involving alcohol or drug use than in general scenes. This tool may prove useful in future research and may be expanded to include different types of scenes, for example, scenes involving positive assertion could be included. This measure could also be used in clinical assessments of alcohol and drug patients, since it enables the clinician to gather a great deal of data in a short period of time and in a setting which gives a better approximation of a naturalistic setting than does a pencil and paper measure.

From the results of this study it can be seen that abstinent subjects (ex-addicts and ex-alcoholics) and normal subjects score significantly higher on the components of assertive behavior than do recently-addicted subjects and methadone maintenance clients. It can also be seen that the recently-addicted subjects and the methadone maintenance clients score even lower on the components of assertive behavior in the drug-related scenes than in the general scenes. So, it appears that assertiveness training in

general scenes and in scenes related to alcohol and drug use may contribute to the ability to remain abstinent for patients in treatment for alcohol or heroin dependence. One future extension of this research will be to develop a training package for patients in general interpersonal social skills and social skills related to abstinence.

A final conclusion of this study is that "assertiveness" is a multi-dimensional behavior. This finding is probably more important to future research than any other fact discovered here. For some time now general assertiveness training has been seen as a panacea for many different population groups and research has focused almost entirely on the comparison of various training approaches. But this study has shown that assertive behavior is much more complex than previously thought and that future research focused on identifying specific components of varying types of assertive behaviors is necessary before appropriate training methodologies can be developed.

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APPENDIX A: THE ASSERTION INVENTORY

Part I

Many people experience difficulty in handling interpersonal situations requiring them to assert themselves in some way, for example, turning down a request asking a favor, giving someone a compliment, expressing disapproval or approval, etc. Please indicate your degree of discomfort or anxiety in the space provided after each situation listed below. Utilize the following scale to indicate degree of discomfort:

1	2	3	4	5
None	A Little	A Fair Amount	Much	Very Much

		Degree of Discomfort
1.	Turn down a request to borrow your car.	(1) (2) (3) (4) (5)
2.	Compliment a friend.	(1) (2) (3) (4) (5)
3.	Ask a favor of someone.	(1) (2) (3) (4) (5)
4.	Resist sales pressure.	(1) (2) (3) (4) (5)
5.	Apologize when you are at fault.	(1) (2) (3) (4) (5)
6.	Turn down a request for a meeting or date.	(1) (2) (3) (4) (5)
7.	Admit fear and request consideration.	(1) (2) (3) (4) (5)
8.	Tell a person you are intimately involved with when he/she says or does something that bothers you.	(1) (2) (3) (4) (5)
9.	Ask for a raise.	(1) (2) (3) (4) (5)
10.	Admit ignorance in some area.	(1) (2) (3) (4) (5)
11.	Turn down a request to borrow money.	(1) (2) (3) (4) (5)
12.	Ask personal questions.	(1) (2) (3) (4) (5)
13.	Turn off a talkative friend.	(1) (2) (3) (4) (5)

1	2	3	4	5
None	A Little	A Fair Amount	Much	Very Much

Degree of Discomfort

14. Ask for constructive criticism.....(1) (2) (3) (4) (5)

15. Initiate a conversation with a.....(1) (2) (3) (4) (5)
stranger.

16. Compliment a person you are.....(1) (2) (3) (4) (5)
romantically involved with or
interested in.

17. Request a meeting or a date with.....(1) (2) (3) (4) (5)
a person.

18. Your initial request for a meeting....(1) (2) (3) (4) (5)
is turned down and you ask the person
at a later time.

19. Admit confusion about a point under...(1) (2) (3) (4) (5)
discussion and ask for clarification.

20. Apply for job.....(1) (2) (3) (4) (5)

21. Ask whether you have offended.....(1) (2) (3) (4) (5)
someone.

22. Tell someone that you like them.....(1) (2) (3) (4) (5)

23. Request expected service when such....(1) (2) (3) (4) (5)
is not forthcoming, e.g., in a
restaurant.

24. Discuss openly with the person.....(1) (2) (3) (4) (5)
his/her criticism of your behavior.

25. Return defective items, e.g., store...(1) (2) (3) (4) (5)
or restaurant.

26. Express an opinion that differs.....(1) (2) (3) (4) (5)
from that of the person you are
talking to.

27. Resist sexual overtures when you.....(1) (2) (3) (4) (5)
are not interested.

28. Tell the person when you feel.....(1) (2) (3) (4) (5)
he/she has done something that is
unfair to you.

29. Accept a date.....(1) (2) (3) (4) (5)

1	2	3	4	5
None	A Little	A Fair Amount	Much	Very Much

Degree of Discomfort

30. Tell someone good news about.....(1) (2) (3) (4) (5)
yourself.

31. Resist pressure to drink.....(1) (2) (3) (4) (5)

32. Resist a significant person's.....(1) (2) (3) (4) (5)
unfair demand.

33. Quit a job.....(1) (2) (3) (4) (5)

34. Resist pressure to "turn on".....(1) (2) (3) (4) (5)

35. Discuss openly with the person.....(1) (2) (3) (4) (5)
his/her criticism of your work.

36. Resist the request of borrowed items..(1) (2) (3) (4) (5)

37. Receive compliments.....(1) (2) (3) (4) (5)

38. Continue to converse with someone.....(1) (2) (3) (4) (5)
who disagrees with you.

39. Tell a friend or someone with whom....(1) (2) (3) (4) (5)
you work when he/she says or does
something that bothers you.

40. Ask a person who is annoying.....(1) (2) (3) (4) (5)
you in a public situation to stop.

Lastly, please indicate the situations you would like to handle more assertively by placing a circle around the item number.

Part II

Indicate after each item the probability or likelihood of your displaying the behavior if actually presented with the situation. For example, if you rarely apologize when you are at fault, you would mark a "4" after that item. Utilize the following scale to indicate response probability:

1	2	3	4	5
Always Do It	Usually Do It	Do It About Half The Time	Rarely Do It	Never Do It

Please do not look at your previous answers above while doing the present ratings. Otherwise, one rating may con-

taminate the other and a realistic assessment of your behavior is unlikely.

1	2	3	4	5
Always Do It	Usually Do It	Do It About Half The Time	Rarely Do It	Never Do It

Response Probability

1. Turn down a request to borrow your car.... (1) (2) (3) (4) (5)
2. Compliment a friend..... (1) (2) (3) (4) (5)
3. Ask a favor of someone..... (1) (2) (3) (4) (5)
4. Resist sales pressure..... (1) (2) (3) (4) (5)
5. Apologize when you are at fault..... (1) (2) (3) (4) (5)
6. Turn down a request for a meeting or date..... (1) (2) (3) (4) (5)
7. Admit fear and request consideration.. (1) (2) (3) (4) (5)
8. Tell a person you are intimately involved with when he/she says or does something that bothers you..... (1) (2) (3) (4) (5)
9. Ask for a raise..... (1) (2) (3) (4) (5)
10. Admit ignorance in some area..... (1) (2) (3) (4) (5)
11. Turn down a request to borrow money... (1) (2) (3) (4) (5)
12. Ask personal questions..... (1) (2) (3) (4) (5)
13. Turn off a talkative friend..... (1) (2) (3) (4) (5)
14. Ask for constructive criticism..... (1) (2) (3) (4) (5)
15. Initiate a conversation with a stranger..... (1) (2) (3) (4) (5)
16. Compliment a person you are romantically involved with or interested in..... (1) (2) (3) (4) (5)
17. Request a meeting or a date with a person..... (1) (2) (3) (4) (5)
18. Your initial request for a meeting is turned down and you ask the person at a later time.... (1) (2) (3) (4) (5)

1	2	3	4	5
Always Do It	Usually Do It	Do It About Half The Time	Rarely Do It	Never Do It

Response Probability

19. Admit confusion about a point under... (1) (2) (3) (4) (5)
discussion and ask for clarification.

20. Apply for job..... (1) (2) (3) (4) (5)

21. Ask whether you have offended..... (1) (2) (3) (4) (5)
someone.

22. Tell someone that you like them..... (1) (2) (3) (4) (5)

23. Request expected service when such.... (1) (2) (3) (4) (5)
is not forthcoming, e.g., in a
restaurant.

24. Discuss openly with the person..... (1) (2) (3) (4) (5)
his/her criticism of your behavior.

25. Return defective items, e.g., store... (1) (2) (3) (4) (5)
or restaurant.

26. Express an opinion that differs..... (1) (2) (3) (4) (5)
from that of the person you are
talking to.

27. Resist sexual overtures when you..... (1) (2) (3) (4) (5)
are not interested.

28. Tell the person when you feel..... (1) (2) (3) (4) (5)
he/she has done something that is
unfair to you.

29. Accept a date..... (1) (2) (3) (4) (5)

30. Tell someone good news about..... (1) (2) (3) (4) (5)
yourself.

31. Resist pressure to drink..... (1) (2) (3) (4) (5)

32. Resist a significant person's..... (1) (2) (3) (4) (5)
unfair demand.

33. Quit a job..... (1) (2) (3) (4) (5)

34. Resist pressure to "turn on"..... (1) (2) (3) (4) (5)

35. Discuss openly with the person..... (1) (2) (3) (4) (5)
his/her criticism of your work.

1	2	3	4	5
Always Do It	Usually Do It	Do It About Half The Time	Rarely Do It	Never Do It

Response Probability

36. Resist the request of borrowed items..(1) (2) (3) (4) (5)

37. Receive compliments.....(1) (2) (3) (4) (5)

38. Continue to converse with someone.....(1) (2) (3) (4) (5)
who disagrees with you.

39. Tell a friend or someone with whom....(1) (2) (3) (4) (5)
you work when he/she says or does
something that bothers you.

40. Ask a person who is annoying.....(1) (2) (3) (4) (5)
you in a public situation to stop.

Lastly, please indicate the situations you would like to handle more assertively by placing a circle around the item number.

APPENDIX B: BEHAVIORAL ASSERTIVENESS TEST

Procedure: Subjects are asked to respond to a verbal stimulus after hearing a narrator describe each scene.
N=Narrator
C=Cue delivered by stimulus person (Scenes 1-6 delivered by female stimulus person, scenes 7-12 delivered by male stimulus person).

1. N: You have just bought a new shirt and when you go to put it on for the first time you notice that several buttons are missing. You return to the store and find the sales clerk who sold you the shirt.

   C: "May I help you, sir?"

2. N: You are at home alone watching an exciting sporting event on television when someone knocks on your door. When you answer the door you find a woman who says she is selling vacuum cleaners.

   C: "Let me come in and demonstrate our latest model. It will only take 15 minutes of your time."

3. N: You are in a small crowded grocery store and you are in a hurry. You pick up one small item and when you get in line to pay for it a woman with a shopping cart full of groceries cuts in line right in front of you.

   C: "Do you mind if I cut in here? I'm late for an appointment."

4. N: You go to a ball game with a reserved ticket. When you get there you find that a woman has put her coat in the seat for which you have the ticket. You ask her to remove her coat and she tells you she is saving the seat for a friend.

   C: "I'm sorry, this seat is saved."

5. N: You are in a drug store and you pick up something that costs $.75. You go to the cashier to pay for

it and you hand her a $5 bill. She rings up the sale and hands you $.25--change for only $1.

C: "Here's your change, sir."

6. N: You have just come home from a hard day's work and you want to have a nice home-cooked meal. Instead you find that your wife has another frozen TV dinner in the oven.

C: "I didn't have time to cook again today. Do you mind having a frozen dinner?"

7. N: You have just bought a new shirt and when you go to put it on for the first time you notice that several buttons are missing. You return to the store and find the sales clerk who sold you the shirt.

C: "May I help you, sir?"

8. N: You are at home alone watching an exciting sporting event on television when someone knocks on your door. When you answer the door you find a man who says he is selling vacuum cleaners.

C: "Let me come in and demonstrate our latest model. It will only take 15 minutes of your time."

9. N: You are in a restaurant with some friends and you order a very rare steak. The waiter brings you a steak that is so well done it looks burned.

C: "I hope you will enjoy your dinner, sir."

10. N: You take your car to a service station to have a grease job and the oil changed. The mechanic tells you that your car will be ready in an hour. When you return to the station to pick up your car you find that in addition to the oil change and the grease job, they have given your car a major tune-up.

C: "That comes to $215. Will that be cash or charge, sir?"

11. N: You and a friend are having lunch together when suddenly he asks if you can lend him $30 until he

gets paid next week. You have the money, but you were planning on spending it for something else.

C: "Please lend me the money. I'll pay you back next week."

12. N: You are in the middle of watching an exciting football game on television when your friend walks in and changes the channel.

C: "Let's watch this movie instead. It's supposed to be real good."

APPENDIX C: SOCIAL SKILLS OF ABSTINENCE TEST

Procedure: Subjects are asked to respond to a verbal stimulus after hearing a narrator describe each scene.
N=Narrator
C=Cue delivered by stimulus person (Scenes 1-4 are delivered by a female stimulus person, Scenes 5-8 delivered by a male stimulus person).

1. N: You are lying in bed thinking about the new job that you start tomorrow. This job is important to you and you are nervous about it and you can't seem to fall asleep. Your wife gets out of bed, turns on the light and says:

   C: "Let me get you some pills to take (or a drink). That'll calm your nerves so you can get some sleep."

2. N: You are in a new town where you don't know anybody and you're feeling bored and lonely. You stop for coffee and the waitress behind the counter begins talking to you. You have time to kill and you start telling her how bored and alone you feel.

   C: "Yeah, I know how you feel. But listen, I'm getting off work in a few minutes. Come with me across the street to my friends' house. I'll introduce you around and we'll all get off together on some really good stuff. (or..Come with me to the bar across the street. Let me buy a few drinks and introduce you to some of my friends.)"

3. N: You have just finished a tough week at a new job. You are tired and uptight but you feel good about yourself. Your wife is proud of you too.

   C: "Hey, honey, you really worked hard this week. I'm proud of you. Let's get high and celebrate. (or.. Let's have a drink and celebrate.)"

4. N: You are at a party and you meet this woman that you are interested in. You begin talking to her

and finally you work up the nerve to ask if you can drive her home. And she says:

C: "Yes I'd like that. But let's cop some dope first so that we can get high together. (or..let's stop someplace and have a few drinks together first.)"

5. N: You are going to visit a good friend whom you have not seen for a long time. As you walk in the door he says:

C: "Hey this will be just like old times. You know, when you said you were coming over, I went out and copped us some really fine stuff. Let's get off right now. (or..I went out and bought us a bottle of really good liquor. You still take it straight, right?)"

6. N: You and a friend have just been to a job interview. After you waited all day, the employer told you that he would not hire anyone with your background. You and your friend walk out of the building feeling really down.

C: "Man, it seems like they're all against us. What's the use, let's go get stoned. (or..let's go have a drink.)"

7. N: You've got a very bad case of the flu. Your stomach has been cramping and hurting for days. You have just come from the doctor's office and he said you would just have to sweat it out. You run into a friend on the street.

C: "Hey, you look awful! I've got some pills here that you know will straighten you out. Here, have some. (or..Let me buy you a drink. You know that will straighten you out.)"

8. N: You and your friends really enjoy watching football games together on Sundays. On this particular Sunday when you arrive everybody else is already there and the game is started.

C: "Hey come on in! You won't believe it, they just ran the kickoff back! Here, take a snort of this--it'll make the game more interesting. (or..here, pop one of these beers--you're about three behind the rest of us.)"

APPENDIX D: INSTRUCTIONS FOR SUBJECTS*

Part I

The purpose of today's procedure is to find out how you respond to some ordinary everyday situations that might happen to anyone. The idea is for you to act just as if you were actually in each situation whether it is at home, in a store or in a restaurant. The T.V. camera is in the room so that we can observe and record your responses on a set in the next room. Most people find that they can relax in front of the camera in a short time.

Here's what we'll be doing today. When I describe a situation to you over the speaker, I want you to imagine that you are really there. For example, if I say you are in a restaurant and the waitress comes over, try and imagine that you are really there right now and that Judy is really the waitress. After I read the scene, Judy will say something to you. After she speaks, I want you to say what you normally would say if you were in that type of situation right now. Do not ask Judy any questions once we begin because she will not be able to answer you. Okay, do you have any questions now?... Remember, respond as if you were really there right now in each situation.

*Instructions are delivered via intercom by male narrator.

Part II

Now, we're going to continue as before, but this time Steve will play the different people in each scene. After he speaks, I want you to say what you normally would say if you were in that type of situation right now. Do not ask Steve any questions once we begin because he will not be able to answer you. Okay, do you have any questions now?... Remember, respond as if you were really there right now in each situation.

APPENDIX E: INSTRUCTIONS FOR RATERS

The study in which you have been asked to participate is an investigation of the social skills of people having problems with alcohol or other drugs.

All subjects were asked to respond to enacted social situations; these scenes and the subjects' responses to the scenes were videotaped. As judges, you will view and rate each scene on various components of assertive behavior: requests for new behavior, compliance content and assertive affect. After you have rated the scenes for the preceding three components you will also rate each scene for overall assertiveness and believability. Remember to rate for overall assertiveness and believability last for each scene.

Rating Instructions for Request for New Behavior

For each scene score "1" (yes) or "2" (no) under the category "request for new behavior." This is clear-cut. If the subject asks the stimulus person to engage in a behavior that he previously was not performing, score a "1" for that scene; if the subject does not indicate that he wishes the stimulus person to do something that he is not already doing, score as "2" for that scene.

It is important to remember that mere noncompliance is not sufficient to score a request for new behavior. For example, in turning a vacuum cleaner salesman away from the door, a subject may say, "I'm not interested." Even though it is implied that the subject is asking the salesman to go away, this does not constitute a request for new behavior unless the subject specifically asks the salesman to "go away" or to "come back tomorrow." A request for new behavior, "1" occurs only when the subject specifically and verbally suggests a new behavior to the stimulus person. All scenes in which such a request does not occur will be scored "2."

Rating Instructions for Compliance

For each scene score a "1", a "2" or a "3", under the category of Compliance. A rating of "1" indicates compliance on the part of the subject; score a "1" when the subject complies or goes along with the demand of the stimulus

person or when the subject avoids making a response. A rating of "3" is made when the subject directly and clearly refuses to comply with the stimulus demand; this rating represents noncompliance. A rating of "2" represents implied noncompliance; this is scored when the subject makes a descriptive or a declarative statement without clearly indicating noncompliance. Refer to the script of the stimulus scenes for the narration and the stimulus cue.

Please remember that in scenes in which alcohol or another drug is being offered, the subject must clearly refuse the chemical substance in order to be noncompliant.

Rating Instructions For Assertive Affect

Each scene will be rated on a scale from 1 to 5 for assertive affect. The quality of assertive affect involves the subject's ability to emphasize the content of what he is saying with his intonation and vocal inflections. An assertive statement made in a flat, unemotional voice does not communicate assertiveness to the listener. For each scene, rate the subject's response in terms of assertive affect. A rating of 1 represents a flat unemotional tone or very soft or mumbled speech, while a rating of 5 indicates full and lively intonation and a clearly audible voice.

Rating for Overall Assertiveness

Assertive behavior is behavior in which a person acts in his own best interests, stands up for himself, exercises his rights without infringing on the rights of others, and expresses his feelings directly and accurately and without excessive anxiety. Both timid and aggressive behaviors are unassertive. Behavior that is fully assertive includes not just the appropriate words but also full tone of voice, adequate loudness, eye contact, gestures, fluid and uninterrupted speech and a facial expression that corresponds to the feelings being expressed.

Although the preceding ratings (request for new behavior, compliance, assertive effect) have been made idependently of each other, in scoring for overall assertiveness you must make a subjective judgment taking into account all of your various impressions. After you have made the other three ratings for each scenes, rate the subject's performance in that scene from 1(unassertive) to 5(fully and appropriately assertive).

Rating for Believability

This rating will be made last for each scene. After you have rated all the other components, I would like for

you to take a reading of your own feelings during the subject's performance in each scene. Again, on a scale from 1 to 5, how honest did you feel the subject was? Was he really saying what he wanted to say? Did he come across authentic? Simply stated: Did you believe him?

APPENDIX F: DUNCAN'S MULTIPLE RANGE TESTS

Table 1: Age

Group Means	26	28	29	Group Means 30	36	38	55	.05*
(1) 26					25.4	29.3	73.7	22.8
(3) 28						24.4	68.6	22.5
(4) 29							66.0	22.1
(2) 30							63.5	21.6
(7) 36							53.3	20.9
(5) 38							43.2	19.2
(6) 55								

*Duncan's shortest significant range; P=.05; S=8.3

Table 2: Years of Addiction

Group Means	3.6	4.6	Group Means 5.3	5.5	6.3	8.0	.05*
(2) 3.6						11.1	8.0
(4) 4.6						8.6	7.9
(3) 5.3						6.8	7.8
(1) 5.5							7.6
(5) 6.3							7.4
(6) 8.0							7.0

*Duncan's shortest significant range; P=.05, S=2.9

Table 3: Use of Non-Prescribed Drugs

Group Means	0	0	.5	Group Means 1.5	1.6	2.0	2.1	.05*
(7) 0				4.0	4.4	5.3	5.7	2.0
(6) 0				4.0	4.4	5.3	5.7	2.0
(5) .5				2.4	2.8	3.6	4.0	2.0
(3) 1.5							1.6	2.0
(2) 1.6								1.9
(4) 2.0								1.8
(1) 2.1								1.7

*Duncan's shortest significant range; P=.05, S=.75.

Table 4: Longest Period of Abstinence in 5 Years

Group Means	.1	.3	.5	Group Means 1.3	1.4	4.0	.05*
(4) .1				2.9	3.2	9.3	2.1
(1) .3				2.5	2.7	8.9	2.1
(5) .5					2.3	8.5	2.1
(3) 1.3						6.5	2.0
(6) 1.4						6.5	2.0
(2) 4.0							

*Duncan's shortest significant range; P=.05, S=.79.

Table 5: Race

Group Means	1.0	1.0	1.1	Group Means 1.3	1.5	1.5	1.8	.05*
(5) 1.0					1.2	1.2	2.0	1.1
(6) 1.0					1.2	1.2	2.0	1.1
(2) 1.1							1.6	1.1
(7) 1.3							1.2	1.0
(1) 1.5								1.0
(3) 1.5								1.0
(4) 1.8								

*Duncan's shortest significant range; P=.05, S=.41.

Table 6: Requests for New Behavior

Group Means	1.61	1.65	1.66	Group Means 1.67	1.69	1.72	1.75	.01*
(7) 1.61					1.6	2.2	2.9	1.61
(2) 1.65							1.8	1.68
(1) 1.66								1.73
(4) 1.67								1.76
(5) 1.69								1.77
(6) 1.72								1.79
(3) 1.75								

*Duncan's shortest significant range; P=.01, S=.44.

Table 7: Compliance

	Group Means							
Group Means	2.06	2.11	2.11	2.19	2.39	2.41	2.43	.01*
(5) 2.06					6.4	6.6	7.0	2.85
(1) 2.11					5.5	5.6	6.0	2.97
(3) 2.11					5.5	5.6	6.0	2.97
(7) 2.19					4.1	4.5	4.9	3.05
(6)								3.12
(4) 2.41								3.16
(2) 2.43								

*Duncan's shortest significant range; P=.01, S=.78.

Table 8: Assertive Affect

	Group Means							
Group Means	2.29	2.75	2.85	2.88	2.91	2.94	3.07	.01*
(3) 2.29		8.7	10.6	12.2	11.7	12.7	14.7	3.07
(1) 2.11						3.7	6.7	3.21
(5) 2.85							4.1	3.29
(7) 2.88							3.9	3.36
(4) 2.91								3.41
(6) 2.94								3.45
(2) 3.07								

*Duncan's shortest significant range; P=.01, S=.84.

Table 9: Overall Assertiveness

				Group Means				
Group Means	2.33	2.42	2.51	2.65	2.73	2.94	3.04	.01*
(3) 2.33				6.0	8.3	12.0	13.4	3.85
(1) 2.42				4.3	6.4	10.2	11.7	4.02
(5) 2.51					4.5	8.3	10.0	4.13
(4) 2.65						5.7	7.3	4.21
(7) 2.73							6.4	4.28
(6) 2.94								4.33
(2) 3.04								

*Duncan's shortest significant range; P=.01, S= 1.06.

Table 10: Believability

				Group Means				
Group Means	3.89	4.26	4.29	4.31	4.37	4.50	4.78	.01*
(3) 3.89		7.0	7.8	7.9	9.1	11.5	18.4	2.65
(4) 4.26						4.5	10.8	2.77
(6) 4.29						4.1	10.1	2.84
(1) 4.31						3.6	9.7	2.90
(2) 4.37							8.5	2.95
(5) 4.50							5.8	2.98
(7) 4.78								

*Duncan's shortest significant range; P=.01, S=.73.

Table 11: Eye Contact

				Group Means				
Group Means	2.24	2.25	2.56	2.92	3.17	3.19	4.10	.01*
(3) 2.24				14.1	17.6	18.7	35.2	11.2
(4) 2.25				13.9	17.4	18.5	35.1	11.7
(5) 2.56						12.4	29.2	12.0
(7) 2.92							24.5	12.3
(1) 3.17							17.6	12.4
(6) 3.19							17.9	12.6
(2) 4.10								

*Duncan's shortest significant range; P=.01, S=3.09.

Table 12: Response Latency

				Group Means				
Group Means	1.44	1.45	1.67	1.68	1.69	1.82	2.18	.01*
(7) 1.44				4.7	5.1	7.4	14.5	4.65
(2) 1.45						7.0	13.8	4.86
(5) 1.67							9.6	4.99
(1) 1.68							9.4	5.09
(6) 1.69							9.6	5.17
(4) 1.82							6.8	5.23
(3) 2.18								

*Duncan's shortest significant range; P=.01, S=1.27.

Table 13: Duration of Reply

	Group Means						
Group Means	4.82	5.88	6.27	6.68	6.84	7.28	7.31	.01*
(5) 4.82		22.0	27.5	35.2	38.3	48.4	47.2	18.8
(7) 5.88					19.9	28.9	29.7	19.6
(2) 6.27							19.7	20.1
(1) 6.68								20.6
(3) 6.84								20.9
(6) 7.28								21.1
(7) 7.31								

*Duncan's shortest significant range; P=.01, S=5.17.

BIOGRAPHICAL SKETCH

Judith Barlow deMontmollin was born in Memphis, Tennessee, in 1948. In 1969 she graduated from Memphis State University magna cum laude. She received the Master of Arts degree in Psychology from the University of Florida in 1972 and a Doctor of Philosophy degree in 1977. Her internship in Clinical Psychology was at Saint Elizabeth's Hospital in Washington, D. C. She now resides in Miami, Florida with her husband, Stephen J. deMontmollin, Esquire, and she is a member of the Psychology Service staff at the Veteran's Administration Hospital in Miami.

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

Audrey S. Schumacher, Ph.D., Chairman
Professor Emeritus of Psychology

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

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Assistant Professor of Psychology

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

Franz R. Epting, Ph.D.
Associate Professor of Psychology

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

Robert C. Ziller, Ph.D.
Professor of Psychology

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

Madelyn M. Lockhart

Madelyn M. Lockhart, Ph.D.
Professor and Assistant Dean of
Economic Business Research

This dissertation was submitted to the Graduate Faculty of the Department of Psychology in the College of Arts and Sciences and to the Graduate Council, and was accepted as partial fulfillment of the requirements for the degree of Doctor of Philosophy.

June 1977

Dean, Graduate School